

Appl. No. 10/644,441
Amtd. Dated February 22, 2005
Reply to Office action of November 22, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A propeller shaft assembly comprising:
a thin-walled tubular member[[],];
a connecting member fixed to each end of the tubular
member[[],]; and
a tubular support member having a generally uniform outer
diameter is fixed within the tubular member, the support member comprising a rigid foamed
plastic extending a first length (L1) within the tubular member and engaging an interior surface
of the tubular member to increase the bending frequency of the propeller shaft assembly.
2. (Currently Amended) An assembly according to claim 1 wherein said support
member comprises an open-cell foamed plastic impregnated with a high modulus resin or
cement.
3. (Canceled)
4. (Original) An assembly according to claim 3 wherein said support member includes
a plurality of openings formed along the first length (L1) for reducing the weight of the support
member.
5. (Currently Amended) An assembly according to claim 2 wherein said open-cell
foamed plastic is generally flexible before being impregnated with the resin or cement.
6. (Original) An assembly according to claim 1 wherein said tubular member comprises
metal or reinforced plastic.
7. (Original) An assembly according to claim 1 wherein said tubular member has a
second length (L2) and the ratio of L1/L2 is less than 1.0.

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8. (Canceled)

9. (Currently Amended) A power transmission shaft comprising:
a ~~thin-walled~~ metal tube having a joint element or stub
shaft fixed to each end thereof[,]; and
a tubular support member having a generally uniform outer
diameter is co-axially located within said tube and engaging an interior surface of said tube, said
support member comprising a rigid foamed plastic extending along a length of the tubular
member.

10. (Original) A power transmission shaft according to claim 9 wherein the support
member has a first length (L1) and said tube has a second length (L2) and the ratio L1/L2 is less
than 1.0.

11. (Original) A power transmission shaft according to claim 9 wherein the support
member includes a plurality of openings formed along the first length (L1) for reducing the
weight of the support member.

12. (Currently Amended) An assembly according to claim 9 wherein said support
member comprises an open-cell foamed plastic impregnated with a ~~high modulus~~ resin or
cement.

13. (Currently Amended) An assembly according to claim 12 wherein said open-cell
foamed plastic is generally flexible before being impregnated with the resin or cement.

14. (Currently Amended) A method of producing a rigid power transmission shaft
comprising:

providing a ~~thin-walled~~ metal or reinforced plastic tube;

and

introducing a tubular support member having a generally
uniform outer diameter co-axially within said tube to engage an interior surface of said tube, said
support member comprising a rigid foamed plastic extending along a length of the tubular
member.

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15. (Withdrawn) A method according to claim 14 wherein the step of introducing includes impregnating an open-cell plastic foam with a ~~high modulus~~ resin or cement, and introducing said impregnated plastic foam into an interior of said tube.
16. (Withdrawn) A method according to claim 14 wherein the step of introducing includes foaming a plastic or cement support member within an interior of said tube.
17. (Withdrawn) A method according to claim 16 wherein the step of introducing includes co-axially locating a mandrel within said tube and foaming a plastic or cement support member in a region between said mandrel and said tube.
18. (Withdrawn) A method according to claim 15 wherein the step of introducing said impregnated plastic foam into an interior of said tube occurs before said impregnated plastic foam has set up.
19. (Withdrawn) A method according to claim 15 wherein the step of introducing said impregnated plastic foam into an interior of said tube occurs after said impregnated plastic foam has set up.
20. (New) An assembly according to claim 1 wherein said tubular member has a thickness generally less than 8 mm.
21. (New) An assembly according to claim 1 wherein said tubular member has an outer diameter generally greater than 40 mm and generally less than 300 mm.
22. (New) An assembly according to claim 1 wherein said tubular member has a second length (L2) and the ratio of L1/L2 is greater than 0.25.
23. (New) A power transmission shaft according to claim 9 wherein the support member has a first length (L1) and said tube has a second length (L2) and the ratio L1/L2 is greater than 0.25.